AMENDMENTS TO THE CLAIMS

1. (Currently Amended) A gas filter for removing a contaminant from a gas comprising an absorptive system, wherein the absorptive system comprising:

a polymer matrix; and

one or more reactive additives,

wherein the absorptive system comprises an absorption capacity of at least about 0.01 gram of captured contaminants per gram of the absorptive system or a water content of at least about 5 percent by weight, wherein the polymer matrix comprises a polymer having a diffusivity of greater than about 10^{-8} cm^2/sec or a T_g of less than about 20 °C**, and wherein the absorptive system comprises a high molecular weight poly(acrylamide) having a weight average molecular weight ranging from about 1 million to about 50 million, sulfonic acid beads, sorbitol, water, and glycerol**.

2. (Canceled)

3. (Currently Amended) The gas filter of claim 1, wherein the polymer comprises at least one of polyethylene/polypropylene random copolymers, poly(dimethylsiloxane), styrene-butadiene random and block copolymers, **and** poly(vinyl chloride) plasticized with dioctyl phthalate~~**, poly(acrylamide) plasticized with water, and poly(acrylamide) plasticized with glycerol**~~.

4. (Canceled)

5. (Currently Amended) The gas filter of claim 1, wherein the one or more reactive additives comprise ~~**water,**~~ catalytic reactants, stoichiometric reactants, catalytic/stoichiometric reactants, acid-scavenging agents, base-scavenging agents, reactive nanoparticles, or a combination thereof.

6. (Canceled)

7. (Currently Amended) The gas filter of claim 1, wherein the one or more reactive additives comprise one or more of a transition metal, a transition metal salt, sulfonic acid, carboxylic acid, phosphoric acid, benzoic acid, NaOH, ethylene diamine, an amine, Na_2CO_3, **and** a primary amine~~, and water~~.

8-9. (Canceled)

10. (Previously Presented) The gas filter of claim 7, wherein the one or more reactive additives comprise reactive nanoparticles.

11. (Previously Presented) The gas filter of claim 1, wherein the one or more reactive additives are uniformly distributed throughout the polymer matrix.

12. (Previously Presented) The gas filter of claim 1, wherein the one or more reactive additives form a layer that is separate from but in contact with the polymer matrix.

13-14. (Canceled)

15. (Previously Presented) The gas filter of claim 1, wherein the absorptive system further comprises one or more non-reactive additives.

16-17. (Canceled)

18. (Previously Presented) The gas filter of claim 1, further comprising a substrate, wherein the absorptive system contacts at least a portion of an outer surface of the substrate.

19. (Canceled)

20. (Previously Presented) The gas filter of claim 18, wherein the substrate comprises a polyolefin, a polyethylene, a polypropylene, a polyester, a polyamide, nylon 6, nylon 66, a cellulosic material, or a combination thereof.

21. (Previously Presented) The gas filter of claim 20, wherein the substrate comprises a polyamide non-woven fabric.

22. (Previously Presented) The gas filter of claim 18, further comprising a housing which at least partially holds the absorptive system, the substrate, or both.

23-45. (Canceled)